

REVIEW MEMORANDUM
DRAFT REGULATION NO. 30 (TITLE V) OPERATING PERMIT

The Premcor Refining Group Inc.
4550 Wrangle Hill Road
Delaware City, Delaware 19706
Permit No.: AQM-003/00016 – Part 1 (Renewal 1)

BACKGROUND

Premcor owns and operates a petroleum refinery located on a 5,000 acre tract in Delaware City bounded by US Route 13 and Delaware Routes 9 and 72. The refinery has the potential to emit greater than 25 tons per year of nitrogen oxides (NO_x) and volatile organic compounds (VOCs), greater than 100 tons per year of carbon monoxide (CO) and sulfur dioxide (SO₂), and greater than 25 tons per year of hazardous air pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act Amendments of 1990. This potential to emit subjects the refinery to Regulation No. 30.

The initial Title V permit was issued on November 14, 2001 to Motiva Enterprises, LLC. Refinery ownership was transferred to Premcor on May 1, 2004. Premcor is a wholly owned subsidiary of the Valero Energy Corporation.

Premcor's Title V fees are paid in full.

Premcor has not requested that any information be considered confidential.

CORRESPONDENCE CHRONOLOGY

Correspondence/Date	Subject
Permit renewal application submittal from Premcor dated November 9, 2005.	Application for permit renewal.
Application completeness determination letter from Ravi Rangan dated January 6, 2006.	Application was judged incomplete due to the compliance certification.
Revised Application from Premcor dated January 26, 2006 titled "Application for Permit Renewal – Revision 1".	Requested compliance certification submitted and incidental corrections needed for Tank 047-TF-78 were highlighted.
Letter to Premcor from Ravi Rangan dated April 7, 2006.	Application was judged administratively complete
Revised Application from Premcor dated March 22, 2007 titled "Application for Permit Renewal – Revision 2".	Submitted to incorporate conditions from Regulation No. 2 permit issued for the Ethanol Blending Project and Tank 408 registration.
Letter to Premcor from Ravi Rangan dated April 30, 2007 returning Revision 2.	Revision 2 was deemed incomplete and returned to the company.
Revised Application from Premcor dated May 22, 2007 titled "Application for Permit Renewal – Revision 2 (revised)"	Submitted to incorporate conditions from Regulation No. 2 permit issued for the Ethanol Blending Project and Tank 408 registration and corrected deficiencies from incomplete Revision 2.

EMISSION POINT AND EMISSION UNIT IDENTIFICATION

The following have been identified as emission points and emission units subject to Part 1 of this Title V operating permit:

Emission Unit	Emission Point	Emission Point Description
HDS	29-1	Catalytic Hydrodesulfurizer Train 1 feed heater (29-H-101) and fractionator heater (29-H-8)
	29-2	Catalytic Hydrodesulfurizer Train 2 feed/fractionator heater (29-H-2), Train 3 feed heater (29-H-3) and fractionator reboiler heater (29-H-9)
	29-3	Catalytic Hydrodesulfurizer Train 4 feed heater (29-H-4) and Train 4 fractionator heater (29-H-7)
	29-4	Catalytic Hydrodesulfurizer Train 5 fractionator heater (29-H-6) and Train 5 feed heater (29-H-5)
Tetra	Fugitives	Tanks
	32-1	Tetra unit feed heater (32-H-101)
SHU	33-1	Selective Hydrogenation unit startup heater (33-H-1)
	33-2	Selective Hydrogenation unit startup heater (33-H-2)
Olefins	34-1	Olefins reboiler heater (34-H-101)
HC	36-1	Hydrocracker unit feed heater (36-H-1)
	36-2	Hydrocracker unit column reboiler (36-H-2)
	36-3	Hydrocracker unit fractionator reboiler (36-H-3)
FES	40-1	Refinery frozen earth propane storage flare system
TF	Various	Refinery Tank Farm classified under 11 groups based on type of construction, type of seal, vapor pressure of the stored liquid and the regulatory applicability of different regulations.
EP	Fugitives	Ether Plant

INSIGNIFICANT ACTIVITIES

Insignificant activities are included in Part 2 of the refinery's Title V permit.

EXISTING REGULATION NO. 1102 PERMITS

Full Regulation No. 2 Permit Designation	Description
<u>APC-82/0633-OPERATION</u> issued February 8, 1985	Heater Unit 29-H-101
<u>APC-81/0790-OPERATION</u> issued June 17, 1981	Heater Unit 29-H-2
<u>APC-81/0791-OPERATION</u> issued June 17, 1981	Heater Unit 29-H-3
<u>APC-81/0792-OPERATION</u> issued June 17, 1981	Heater Unit 29-H-4

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<u>APC-81/0793-OPERATION</u> issued June 17, 1981	Heater Unit 29-H-5
<u>APC-81/0794-OPERATION</u> issued June 17, 1981	Heater Unit 29-H-6
<u>APC-81/0795-OPERATION</u> issued June 17, 1981	Heater Unit 29-H-7
<u>APC-81/0796-OPERATION</u> issued June 17, 1981	Heater Unit 29-H-8
<u>APC-81/0797-OPERATION</u> issued June 17, 1981	Heater Unit 29-H-9
<u>APC-81/0873-OPERATION</u> issued August 21, 1981	Hydrodesulfurizer Train I
<u>APC-81/0874-OPERATION</u> issued August 21, 1981	Hydrodesulfurizer Train II
<u>APC-81/0875-OPERATION</u> issued August 21, 1981	Hydrodesulfurizer Train III
<u>APC-81/0876-OPERATION</u> issued August 21, 1981	Hydrodesulfurizer Train IV
<u>APC-81/0877-OPERATION</u> issued August 21, 1981	Hydrodesulfurizer Train V
<u>APC-81/0832-OPERATION (Amendment 1)(HON)</u> issued October 23, 1997	Benzene Loading Facility
<u>APC-81/0833-OPERATION</u> issued February 24, 1982	Aromatics Fractionation and Storage Facility
<u>APC-82/0979-OPERATION</u> issued September 16, 1982	Nitrogen Grade Toluene Facility
<u>APC-81/0802-OPERATION</u> issued June 17, 1981	Heater Unit 32-H-101
<u>APC-95/0580-CONSTRUCTION (RACT)</u> issued September 6, 1995	Coker Naphtha Selective Hydrogenation Unit
<u>APC-81/0805-OPERATION</u> issued June 17, 1981	Heater Unit 33-H-1
<u>APC-81/0806-OPERATION</u> issued June 17, 1981	Heater Unit 33-H-2
<u>APC-81/0822-OPERATION (Amendment 1)</u> issued June 12, 1992	Olefins Plant
<u>APC-81/0808-OPERATION</u> issued June 17, 1981	Heater Unit 134-H-101
<u>APC-81/0966-OPERATION</u> issued September 9, 1981	Hydrocracker Unit and Process Heaters 36-H-1, 36-H-2, and 36-H-3
<u>APC-80/0869-OPERATION (Amendment 5)(VOC RACT)(NSPS)</u> issued November 4, 1999	Intermediate Product Tank Farm
<u>APC-80/0869-OPERATION (Amendment 4)(VOC RACT)(NSPS)</u> issued April 12, 1996	Intermediate Product Tank Farm
<u>APC-80/0870-OPERATION (Amendment 3)(VOC RACT)(NSPS)</u> issued March 29, 2000	Crude Oil Tank Farm
<u>APC-80/0870-OPERATION (Amendment 2)(VOC RACT)(NSPS)</u> issued October 12, 1994	Crude Oil Tank Farm
<u>APC-81/0120-OPERATION (Amendment 2)(RACT)</u> issued November 6, 1996	Sour Water Treatment Crude Unit
<u>APC-80/0868-OPERATION</u> issued April 30, 1980	Product Tank Farm
<u>APC-80/0868-CONSTRUCTION/OPERATION (NSPS)(RACT)(MACT)</u> dated March 29, 2006	Ethanol Blending Project
<u>APC-91/0553-OPERATION (RACT)(MACT)</u> issued January 30, 1995	Ether Plant

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UPDATES/CHANGES IN THE RENEWAL PERMIT

1. Regulatory updates for Regulation No 30, 40 CFR Part 63 Subparts A, H, and CC, and 40 CFR Part 60 Subparts VV and GGG have been included in the renewal permit.
2. Terms from Revision 1 (Significant) dated March 20, 2002 have been added.
3. Terms from Revision 2 (Administrative) dated April 30, 2002 have been added.
4. Applicable requirements from Paragraph 24 and Attachment 2 of Civil Action No. H-01-0978, Heaters and Boilers Consent Decree between the USA, Plaintiff and the States of Delaware and Louisiana, and the Northwest Air Pollution Authority of the State of Washington, Plaintiff-Interveners versus Motiva Enterprises LLC, Defendant, entered on March 21, 2001.
5. Alternate Monitoring Plan for monitoring H₂S content in the fuel gas for heaters and boilers. Motiva submitted the AMP in a letter dated 9/12/2001 to Judy Katz, Air Protection Division Director, US EPA Region III.
6. Applicable requirements from **Permit: APC-80/0868-CONSTRUCTION/OPERATION (NSPS)(RACT)(MACT)** dated March 29, 2006 for the Ethanol Blending Project. This was the subject of the refinery's Application for Permit Renewal – Revision 2 (revised) dated May 22, 2007. This is also the only Regulation No. 2 permit issued to the refinery for Part 1 units since the issuance of Part 1 in 2001. The registration for Tank 408 has been included and is subject to the operational limitation in Condition 3 – Table 1(ff)(1)(iii) for the maximum true vapor pressure of the petroleum liquid stored.
7. Appendix A is a photocopy of Premcor's summary of proposed equipment changes (Table 1-1) and is inclusive of the initial renewal application and Revision 1.
8. Appendix B is a photocopy of Premcor's summary of proposed text changes (Table 1-2).

FACILITY WIDE REQUIREMENTS

1990 CAAA, Section 112(r)

The facility is subject to and has registered in compliance with the State of Delaware.

1990 CAAA, Title VI

The facility has air conditioners and refrigeration equipment that use CFCs, HCFCs, or other ozone depleting substances. The equipment contains a refrigerant charge greater than 50 pounds. Facility personnel do maintain, service, repair or dispose of any motor vehicle air conditioners or appliances, as defined in 40 CFR Part 82.152. The refinery's application states 40 CFR Part 82 subparts B and F are applicable to the facility but not applicable to any unit covered by the Title V part 1 permit.

Compliance Schedule

The facility is not under a compliance schedule.

Permit Shield

The facility has not requested a Permit Shield.

Compliance Assurance Monitoring (CAM) Rule

For an emission unit to be subject to 40 CFR Part 64 (the CAM Rule) an emission unit must meet the following 3 criteria: 1) The unit must be subject to an emission limitation or standard for the applicable regulated air pollutant, 2) The unit must use a control device to achieve compliance with any such emission limitation or standard; and 3) The unit must have potential pre-control device emissions of the applicable regulated air pollutant greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source. The refinery's application erroneously states the major source threshold for NOx is 100 TPY. A review of application Table 1-3 shows 11 of the 16 active heaters and boilers have emissions greater than 25 TPY.

The emission units covered by this permit do not have control devices and therefore are not subject to the CAM rule.

CAM Applicability Determination

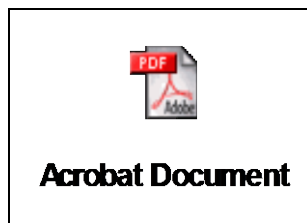
Unit	Control Device	CAM Applicable?
29-H-101	No	No
29-H-2	No	No
29-H-3	No	No
29-H-4	No	No
29-H-5	No	No
29-H-6	No	No
29-H-7	No	No
29-H-8	No	No
29-H-9	No	No

Unit	Control Device	CAM Applicable?
32-H-101	No	No
32-H-102	Shut Down	
32-H-103	Shut Down	
33-H-1	No	No
33-H-2	No	No
34-H-101	No	No
36-H-1	No	No
36-H-2	No	No
36-H-3	No	No
40-H-1	Demolished	

It is recommended the draft operating permit be issued to the Company and the EPA, and advertised in the News Journal for the 30-day public review period and the affected states of Maryland, New Jersey and Pennsylvania.

PEF:CRR:BAS:slb
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pc: Dover Title V File
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Double click to open Attachment A and B.